

Amendments to the Claims:

Please amend claims 1, 2 and 13, cancel claims 4-12 and 15-50 and add new claims 51-62. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide having at least 95% identity to SEQ ID NO:4, wherein the polypeptide induces an immune response in a susceptible organism that blocks the transmission of malaria ~~and hybridizes under stringent conditions to SEQ ID NO:3.~~

2. (currently amended) A ~~The composition comprising an of claim 1;~~
~~wherein the~~ isolated nucleic acid having has a sequence as shown in SEQ ID NO:3.

3. (original) A composition comprising an isolated nucleic acid molecule which encodes a Pvs25 polypeptide having an amino acid sequence as shown in SEQ ID NO:4.

4-12 (canceled)

13. (currently amended) A method of inducing an immune response against Pvs25 on the surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible organism a pharmaceutical composition comprising a nucleic acid encoding a Pvs25 polypeptide in an amount sufficient to induce a transmission blocking immune response, wherein the nucleic acid encodes a Pvs25 polypeptide having at least 95% identity to SEQ ID NO:4.

14. (original) The method of claim 16, wherein the susceptible organism is a human.

15-50 (canceled)

1 51. (new) A composition comprising an isolated nucleic acid molecule which
2 encodes a Pvs25 polypeptide, wherein the polypeptide induces an immune response in a
3 susceptible organism that blocks the transmission of malaria, and wherein the nucleic acid
4 molecule has at least 95% identity to SEQ ID NO:3.

1 52. (new) A composition of comprising an isolated Pvs25 polypeptide having
2 at least 95% identity to SEQ ID NO:4, wherein the polypeptide induces an immune response in a
3 susceptible organism that blocks the transmission of malaria.

1 53. (new) The composition of claim 52, wherein the Pvs25 polypeptide has
2 an amino acid sequence as shown in SEQ ID NO:4

1 54. (new) A pharmaceutical composition comprising a pharmaceutically
2 acceptable carrier and a Pvs25 polypeptide of claim 52 in an amount sufficient to induce an
3 immune response in a susceptible organism.

1 55. (new) The composition of claim 54, wherein the Pvs25 polypeptide
2 comprises an amino acid sequence encoded by the nucleic acid of claim 1.

1 56. (new) The composition of claim 54, wherein the Pvs25 polypeptide
2 comprises an amino acid sequence encoded by the nucleic acid sequence of SEQ ID NO:3 or an
3 amino acid having the sequence as set forth in SEQ ID NO:4.

1 57. (new) The method of claim 13, wherein the nucleic acid encoding the
2 Pvs25 polypeptide is administered intramuscularly, intradermally, subcutaneously, or
3 intranasally.

1 58. (new) A method of inducing an immune response against Pvs25 on the
2 surface of *Plasmodium vivax* ookinetes, the method comprising administering to a susceptible
3 organism a pharmaceutical composition comprising a Pvs25 polypeptide of claim 52 in an
4 amount sufficient to induce a transmission blocking immune response.

1 59. (new) The method of claim 58, wherein the Pvs25 polypeptide in the
2 pharmaceutical composition is recombinantly produced.

1 60. (new) The method of claim 58, wherein the susceptible organism is a
2 human.

1 61. (new) The method of claim 58, wherein the Pvs25 polypeptide in the
2 pharmaceutical composition is on the surface of a recombinant virus.

1 62. (new) The method of claim 58, wherein the Pvs25 polypeptide is
2 administered intramuscularly, intradermally, subcutaneously, or intranasally.